

Mr. Alvin E. Givens
Lighting Resources, Inc.
498 Park 800 Drive
Greenwood, Indiana 46143

Re: 081-10779-00030
Request for permit revision to
FESOP 081-6374-00030

Dear Mr. Givens:

Lighting Resources, Inc., was issued a Federally Enforceable State Operating Permit (FESOP) on December 9, 1996, for a fluorescent and HID bulb demanufacturing process. A letter requesting a revision of the permit conditions which require monitoring of the mercury concentration in the carbon bed control system exhaust was received on March 27, 1999, with additional information added on September 28, 1999. Based on the information submitted and review of the current permit, it has been determined that the operation the carbon absorption bed system is best monitored by measuring the concentration of mercury vapors in the exhaust stream. This type of analysis is what is currently required in the permit, and there does not appear to be any technical reason why the monitoring specified in the permit cannot be performed. Therefore, your request to change the monitoring conditions is denied.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Janusz Johnson, OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for extension 2-8325, or dial (317) 232-8325.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

JKJ

cc: File - Johnson County
U.S. EPA, Region V
Johnson County Health Department
Air Compliance Section Inspector - Marc Goldman
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP)

Source Background and Description

Source Name:	Lighting Resources, Inc.
Source Location:	498 Park 800 Drive, Greenwood, Indiana 46143
County:	Johnson
Operation Permit No.:	F081-6374-00030
Operation Permit Issuance Date:	December 9, 1996
Review No.:	081-10779-00030
Permit Reviewer:	Janusz Johnson

The Office of Air Management (OAM) has reviewed a revision application from Lighting Resources, Inc., relating to the operation of the carbon absorption bed controlling mercury air emissions from the fluorescent and HID bulb demanufacturing process. Specifically, Lighting Resources, Inc., has requested to change the compliance monitoring requirements used to assure effective operation of the control system. According to Lighting resources, the existing requirements have proven difficult because there is no EPA approved method of sampling mercury air emissions to determine weekly breakthrough as required in Condition D.1.4 of the permit. Stack testing can be used to demonstrate compliance, but would be excessively expensive to do on a monthly, or even annual basis. As an alternative to the current compliance monitoring requirements, Lighting Resources, Inc., has proposed a combination of annual core sampling of the carbon bed to monitor the rate of saturation and complete carbon bed replacement every five (5) years at a minimum.

History

On December 9, 1996, Lighting Resources, Inc., was issued a Federally Enforceable State Operating Permit (FESOP No. F081-6374-00030) for a fluorescent bulb and HID bulb demanufacturing plant. On July 1, 1998, an Administrative Amendment (No. 081-9692-00030) was issued which added a mercury retort machine to the fluorescent bulb demanufacturing process to recycle the mercury more effectively.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the requested Permit Revision be denied. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 22, 1999. Additional information was received on September 28, 1999.

Review of the information submitted and prior permitting determinations support the need to monitor the carbon absorption bed to demonstrate compliance with the requirements of permit. Based on information obtained from the carbon bed manufacturer, the operation and efficiency of the carbon bed is best gauged by breakthrough analysis. This type of analysis is what is currently required in the permit. There does not appear to be any technical reason why the monitoring specified in the permit cannot be performed, and no alternative to that monitoring has been presented which can be considered equivalent. Therefore, the monitoring requirements cannot be changed as requested.

Conclusion

The changes to the carbon absorption bed monitoring requirements of the permit requested are denied as detailed in the attached letter (No. 081-10779-00030).